

A. G. Contract No. KR98 0224TRN  
ADOT ECS File: JPA 97-215  
Project: H4396 01C  
Section: Develop Vehicle Noise  
Levels

INTERGOVERNMENTAL AGREEMENT  
BETWEEN

THE STATE OF ARIZONA

AND

C. 64.98.236.2.00 MARICOPA COUNTY, ARIZONA

THIS AGREEMENT is entered into 27 APRIL, 1998,  
pursuant to Arizona Revised Statutes Section 11-952 through 11-  
954 as amended, between the STATE OF ARIZONA, acting by and  
through its DEPARTMENT OF TRANSPORTATION (the "State") and  
MARICOPA COUNTY, ARIZONA acting by and through its BOARD OF  
SUPERVISORS (the "County").

I. RECITALS

1. The State is empowered by Arizona Revised Statutes  
Section 28-401 to enter into this agreement and has by  
resolution, a copy of which is attached hereto and made a part  
hereof, resolved to enter into this agreement and has delegated  
to the undersigned the authority to execute this agreement on  
behalf of the State.

2. The County is empowered by Arizona Revised Statutes  
Section 11-251 to enter into this agreement and has authorized  
the undersigned to execute this agreement on behalf of the  
County.

3. The State and the County desire to participate in a  
study to develop new Vehicle Reference Energy Mean Emission  
Levels (REMELS). These new vehicle noise levels would be  
developed specifically for Arizona and Maricopa County in  
particular, at an estimated cost of \$74,000.00.

THEREFORE, in consideration of the mutual agreements expressed  
herein, it is agreed as follows:

NO. 22341  
Filed with the Secretary of State  
Date Filed: 04/27/98

Betty Bayless  
Secretary of State

By Vicky Haenewald

II. SCOPE

## 1. The State will:

a. By change order to an existing State engineering consultant contract, accomplish the study generally in accordance with Exhibit A, which is attached hereto and made a part hereof. Provide the County with progress reports as they are developed, incorporate County review comments, and provide the County a final report.

b. Invoice the County in an amount not to exceed \$15,000.00 as the County's share of the cost of the study.

c. Be responsible for any consultant claims for extra compensation due to delays or whatever reason attributable to the State.

## 2. The County will:

a. Review the study progress reports and provide comments.

b. Within 30 days after receipt and approval of an invoice, pay the State \$15,000.00 as the County's share of the cost of the study.

c. Be responsible for any consultant claims for extra compensation due to delays or whatever reason attributable to the County.

III. MISCELLANEOUS PROVISIONS

1. This agreement shall remain in force and effect until completion of the study and payments, unless cancelled by either party upon thirty days written notice to the other.

2. This agreement shall become effective upon filing with the Secretary of State.

3. This agreement may be cancelled in accordance with Arizona Revised Statutes Section 38-511.

4. The provisions of Arizona Revised Statutes Section 35-214 are applicable to this contract.

5. In the event of any controversy which may arise out of this agreement, the parties hereto agree to abide by arbitration.

6. All notices or demands upon any party relating to this agreement shall be in writing and shall be delivered in person or sent by mail addressed as follows:

Arizona Department of Transportation  
Joint Project Administration  
205 South 17 Avenue, Mail Drop 616E  
Phoenix, AZ 85007

Maricopa County  
Department of Transportation  
Community & Government Relations Division  
2901 West Durango Street  
Phoenix, AZ 85009


7. Attached hereto and incorporated herein is the written determination of legal counsel that the parties are authorized under the laws of this State to enter into this agreement and that the agreement is in proper form.

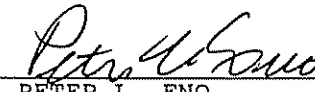
IN WITNESS WHEREOF, the parties have executed this agreement the day and year first above written.

MARICOPA COUNTY


STATE OF ARIZONA

Department of Transportation

By   
JANICE K. BREWER, Chairman  
Board of Supervisors

By   
PETER L. ENO  
Contract Administrator

ATTEST

By  APR 01 1998  
FRAN MCCARROLL  
Clerk of the Board

RESOLUTION

BE IT RESOLVED on this 30th day of January 1998, that I, the undersigned LARRY S. BONINE, as Director of the Arizona Department of Transportation, have determined that it is in the best interests of the State of Arizona that the Department of Transportation, acting by and through the Intermodal Transportation Division, to enter into an agreement with Maricopa County for the purpose of defining responsibilities for developoing a new set of vehicle reference energy mean emmission levels (noise levels).

Therefore, authorization is hereby granted to draft said agreement which, upon completion, shall be submitted to the Contract Administrator for approval and execution.

A handwritten signature in dark ink, appearing to read 'D. Allocco', is written over a horizontal line.

DAVID ALLOCCO, Manager  
Engineering Technical Group  
for Larry S. Bonine, Director

# Office of the Clerk



STATE OF ARIZONA  
COUNTY OF MARICOPA }

*I, Fran McCarroll, Clerk of the Board of Supervisors, do hereby certify that the attached is a true and correct excerpt of the minutes of the meeting of the Board of Supervisors held April 1, 1998:*

The Board of Supervisors of Maricopa County, Arizona, convened at 9:00 a.m., April 1, 1998, in the Board of Supervisors' Auditorium, 205 W. Jefferson, Phoenix, Arizona, with the following members present: Jan Brewer, Chairman; Fulton Brock, Vice-Chairman; Don Stapley, Andy Kunasek, and Mary Rose Wilcox. Also present: Dean Wolcott, Deputy County Attorney; David Smith, County Administrative Officer; Fran McCarroll, Clerk of the Board; and Michelle "Bea" Beasley, Administrative Coordinator.

INTERGOVERNMENTAL AGREEMENT WITH ARIZONA STATE DEPARTMENT OF  
TRANSPORTATION - NOISE LEVEL STUDY

Motion was made by Supervisor Brock, seconded by Supervisor Stapley, and unanimously carried to approve an Intergovernmental Agreement with Arizona State Department of Transportation for the preparation of a Noise Level Study to develop new Vehicle Reference Energy Mean Emission Levels, Work Order No. 68906. Arizona Department of Transportation will be responsible to conduct the \$74,000 study through its consultant. The County will contribute \$15,000 toward the total costs of the study, review the progress reports and receive a final report. (All Supervisorial Districts) (C64982362)



*IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of the Board of Supervisors. Done at Phoenix, the County Seat, on April 16, 1998.*

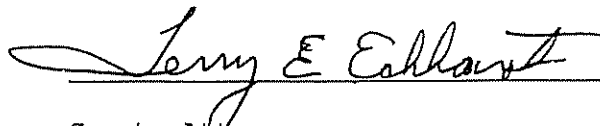
*Fran McCarroll*  
Clerk of the Board of Supervisors

Arizona Department of Transportation  
File

APPROVAL OF THE MARICOPA COUNTY ATTORNEY

I have reviewed the above referenced proposed intergovernmental agreement, between the DEPARTMENT OF TRANSPORTATION, HIGHWAYS DIVISION, and MARICOPA COUNTY and declare this agreement to be in proper form and within the powers and authority granted to the County under the laws of the State of Arizona.

DATED this 19th day of March, 1998.

  
\_\_\_\_\_  
County Attorney

## I. PROBLEM STATEMENT

As part of its development of the new Transportation Noise Model (TNM), the USDOT through the Volpe National Transportation Systems Center (VNTSC) and FHWA have released a new set of vehicle Reference Energy Mean Emission Levels (REMELs). These new REMELs do not consider regional or state variations, and are intended for use in all states.

Several questions arise for Arizona to consider. First, are there variations in vehicle emissions that should be considered when using the TNM specifically in Arizona? Other DOTs have found this to be the case for the vehicles in their states. If so, could ignoring these variations cause the TNM to overpredict levels in Arizona, thus resulting in needless barrier construction to address impacts that do not in reality exist? Again, other state DOTs have found this to be the case with the current model STAMINA 2.0. Also, will the TNM be released and adopted in a timely manner, or will STAMINA 2.0 still be used for a significant period of time? If so, given the active status of the Arizona noise program, many studies may yet be completed with the current tools; a re-definition of the existing REMELs could be quite cost effective. For example, the Georgia DOT saved approximately \$3,000,000 in barrier costs on the Georgia 400 project by using state-specific REMEL values in its version of STAMINA 2.0. This savings was about 35 percent of the original barrier costs estimated for the project.

Beyond the issues relating to the new REMELs, questions also relate to the overall applicability of the new TNM to the Arizona noise program. Will TNM out-perform STAMINA 2.0 and OPTIMA on Arizona projects? Will the need to construct barriers be increased or decreased if and/or when the changeover takes place? Will those barriers be more or less cost efficient than those designed with the current tools? These questions need to be answered prior to ADOT and MCDOT switching from the STAMINA 2.0/OPTIMA system to the TNM.

## II. SUMMARY OF PROPOSED ACTIVITIES

The work proposed herein would take place in two phases. The first concerns measurements of vehicle emission levels as per the procedures for REMEL development specified in FHWA-PD-96-046/DOT-VNTSC-FHWA-96-5, *Measurement of Highway Related Noise*. These data would be collected in a manner and quantity suitable for development of REMEL values for both the TNM and STAMINA 2.0.

The second phase would then involve application of the original (national) and new STAMINA 2.0 Arizona REMELs, and the new (national TNM) and new (Arizona TNM) REMELs to one or more actual projects. This will involve utilizing both the STAMINA 2.0/OPTIMA system and the TNM system to analyze impacts and produce preliminary barrier designs.  $L_{eq}$  measurements will also be made, as per the procedures specified in *Measurement of Highway Related Noise*. These measurements will be used to confirm and compare the accuracy of each model with each set of REMEL values.

It is anticipated that support in measurement activities for both phases would come from the Civil Engineering Departments from either Arizona State University or the University of Arizona, or both. In addition, it is hoped that personnel from both ADOT and MCDOT could actively participate in the study. This would allow for both agencies to receive advanced training.



GRANT WOODS  
ATTORNEY GENERAL

STATE OF ARIZONA  
OFFICE OF THE ATTORNEY GENERAL  
1275 WEST WASHINGTON, PHOENIX 85007-2926

TRN Main: (602) 542-1680  
Direct: (602) 542-8837  
Fax: (602) 542-3646  
MAIN PHONE: 542-5025  
TELECOPIER : 542-4085

**INTERGOVERNMENTAL AGREEMENT**  
**DETERMINATION**

A.G. Contract No. KR98-0224TRN, an agreement between public agencies, has been reviewed pursuant to A.R.S. § 11-952, as amended, by the undersigned Assistant Attorney General who has determined that it is in the proper form and is within the powers and authority granted to the State of Arizona.

No opinion is expressed as to the authority of the remaining parties, other than the State or its agencies, to enter into said agreement.

DATE April 21, 1998.

GRANT WOODS  
Attorney General

A handwritten signature in black ink, reading "James R. Redpath", is written over a horizontal line.

JAMES R. REDPATH  
Assistant Attorney General  
Transportation Section

JRR:et/11858

Enc.